



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<b>(51) International Patent Classification <sup>6</sup> :</b> <b>A61K 38/05, 38/06</b>	<b>A1</b>	<b>(11) International Publication Number:</b> <b>WO 95/17204</b> <b>(43) International Publication Date:</b> 29 June 1995 (29.06.95)									
<b>(21) International Application Number:</b> PCT/NZ94/00143 <b>(22) International Filing Date:</b> 20 December 1994 (20.12.94)  <b>(30) Priority Data:</b> <table border="0"> <tr> <td>250572</td> <td>23 December 1993 (23.12.93)</td> <td>NZ</td> </tr> <tr> <td>260091</td> <td>14 March 1994 (14.03.94)</td> <td>NZ</td> </tr> <tr> <td>264070</td> <td>22 July 1994 (22.07.94)</td> <td>NZ</td> </tr> </table> <b>(71) Applicant (for all designated States except US):</b> AUCKLAND UNISERVICES LIMITED [NZ/NZ]; UniServices House, 58 Symonds Street, Auckland 1001 (NZ).  <b>(72) Inventors; and</b> <b>(75) Inventors/Applicants (for US only):</b> GLUCKMAN, Peter, David [NZ/NZ]; 69 Park Road, Grafton, Auckland 1001 (NZ). WILLIAMS, Christopher, Edward [NZ/NZ]; Auckland UniServices Limited, UniServices House, 58 Symonds House, Auckland 1001 (NZ).  <b>(74) Agents:</b> PIPER, James, William et al.; James W. Piper & Co., 46 Brown Street, Ponsonby, Auckland 1002 (NZ).		250572	23 December 1993 (23.12.93)	NZ	260091	14 March 1994 (14.03.94)	NZ	264070	22 July 1994 (22.07.94)	NZ	<b>(81) Designated States:</b> AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG), ARIPO patent (KE, MW, SD, SZ).  <b>Published</b> <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>
250572	23 December 1993 (23.12.93)	NZ									
260091	14 March 1994 (14.03.94)	NZ									
264070	22 July 1994 (22.07.94)	NZ									
<b>(54) Title:</b> COMPOSITION AND METHODS TO IMPROVE NEURAL OUTCOME  <b>(57) Abstract</b> <p>The tripeptide glycine-proline-glutamine (GPE) may be administered before or usually after injury, to reduce damage to the central nervous system. GPE appears useful for neuronal rescue particularly but not exclusively within the hippocampus. Advantages of GPE include: a) that it crosses the blood-brain barrier, so is effective by injected peripheral administration; b) it is unlikely to challenge the immune system; c) it is cheap; and d) its therapeutic ratio is high. GPE may be also be infused into the CSF. It may be administered prior to parturition or elective brain or cardiac surgery. Transdermal routes may be useful for chronic neural disorders. The CNS of mammals (including foetal mammals) after trauma including hypoxic/ischaemic experimental insults showed reduced damage under GPE protection as measured by histological assesment of cell damage or death and regional shrinkage.</p>											

## COMPOSITION AND METHODS TO IMPROVE NEURAL OUTCOME

**Patent number:** WO9517204  
**Publication date:** 1995-06-29  
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**Classification:**  
- **international:** A61K38/05; A61K38/06  
- **european:** A61K38/05; A61K38/06; A61K38/30  
**Application number:** WO1994NZ00143 19941220  
**Priority number(s):** NZ19930250572 19931223; NZ19940260091 19940314; NZ19940264070 19940722

### Also published as:



EP0735894 (A1)  
EP0735894 (A4)  
AU700838 (B2)

### Cited documents:



EP0366638  
AU3808493  
AU5260186  
WO9302695

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### Abstract of WO9517204

The tripeptide glycine-proline-glutamine (GPE) may be administered before or usually after injury, to reduce damage to the central nervous system. GPE appears useful for neuronal rescue particularly but not exclusively within the hippocampus. Advantages of GPE include: a) that it crosses the blood-brain barrier, so is effective by injected peripheral administration; b) it is unlikely to challenge the immune system; c) it is cheap; and d) its therapeutic ratio is high. GPE may be also be infused into the CSF. It may be administered prior to parturition or elective brain or cardiac surgery. Transdermal routes may be useful for chronic neural disorders. The CNS of mammals (including foetal mammals) after trauma including hypoxic/ischaemic experimental insults showed reduced damage under GPE protection as measured by histological assesment of cell damage or death and regional shrinkage.

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